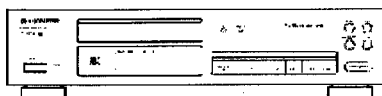


# Service Manual



ORDER NO.  
RRV 1789

COMPACT DISC PLAYER

# PD-106

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	The voltage can be converted by the following method.
	PD-106		
WYXK	O	AC220 - 240V	_____
WVXK	O	AC220 - 240V	_____
WPWXJ	O	AC220 - 240V	_____
RDXJ	O	AC110 - 127V/220 - 240V	With the voltage selector
RLXJ	O	AC110 - 120V/220 - 240V	With the voltage selector

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# 1. SAFETY INFORMATION

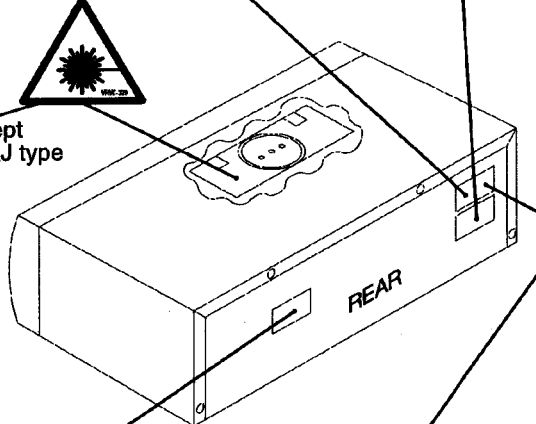
<p><b>VARO!</b> AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.</p>	 <b>LASER</b> Kuva 1 Lasersäteilyn varoitusmerkki	<p><b>WARNING!</b> DEVICE INCLUDES LASER DIODE WHICH EMITS INVISIBLE INFRARED RADIATION WHICH IS DANGEROUS TO EYES. THERE IS A WARNING SIGN ACCORDING TO PICTURE 1 INSIDE THE DEVICE CLOSE TO THE LASER DIODE.</p>	 <b>LASER</b> Picture 1 Warning sign for laser radiation
<p><b>ADVARSEL:</b> USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHED SAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.</p>	<p><b>IMPORTANT</b> THIS PIONEER APPARATUS CONTAINS LASER OF CLASS 1. SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUCTED PERSON.</p>		
<p><b>VARNING!</b> OSYNLIG LASERSTRÅLNING NÅR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRakta EJ STRÅLEN.</p>	<p><b>LASER DIODE CHARACTERISTICS</b> MAXIMUM OUTPUT POWER: 5 mw WAVELENGTH: 780-785 nm</p>		

## LABEL CHECK

WYXK type only

**ADVARSEL**  
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHED SAF-  
BRYDERE ER UDE AF FUNKTION.  
UNDGÅ UDSÆTTELSE FOR STRÅLING.  
**VARNING!**  
USYNLIG LASERSTRÅLNING TRÄFFT ÅJS, NÄNN DECKEL  
ÖPPNAD. BETRÄKTA EJ STRÅLEN.  
VRW100M

**VARO!**  
Avatessa ja suojalukitus ohitetta-  
essa olet alttiina näkymättömälle  
lasersäteilylle. Älä katso säteeseen.  
**VARNING!**  
Osynlig laserstrålning när denna del  
är öppnad och spärren är urkopplad.  
Betrakta ej strålen.  
PRW1235



Except RDXJ type

**CLASS 1  
LASER PRODUCT**  
VRW-328

Except RDXJ type

**CAUTION**  
INVISIBLE LASER  
RADIATION WHEN OPEN,  
AVOID EXPOSURE  
TO BEAM  
PRW1018

WVXK, WPWXJ and RLXJ type

### Additional Laser Caution

#### 1. Laser Interlock Mechanism

The position of the switch (S651) for detecting loading state is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch (S651) is not on CLMP terminal side (CLMP signal is OFF or high level).

Thus, the interlock will no longer function if the switch (S651) is deliberately set to CLMP terminal side. (low level)

The interlock also does not function in the test mode \*. Laser diode oscillation will continue, if pin 33 of CXA1782CQ (IC151) on the MOTHER BOARD ASSY is connected to GND, or pin 28 of IC351 (LDON) is connected to low level (ON), or else the terminals of Q151 are shorted to each other (fault condition).

2. When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

\* : Refer to page 20.

## 2. EXPLODED VIEWS AND PARTS LIST

NOTES: • Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

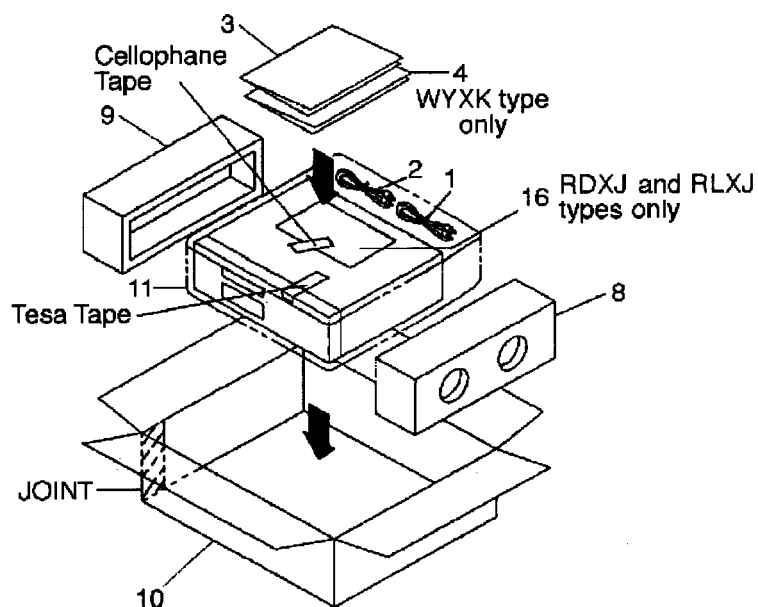
• The  $\triangle$  mark found on some component parts indicates the importance of the safety factor of the part.

Therefore, when replacing, be sure to use parts of identical designation.

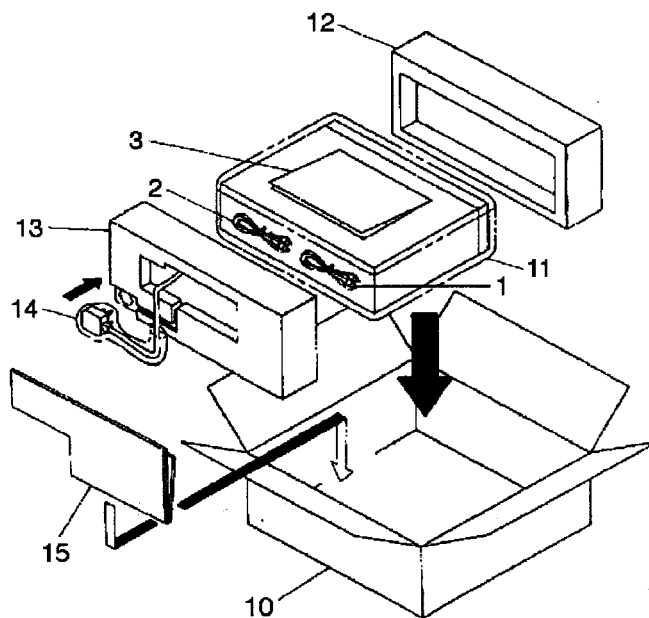
• Screws adjacent to  $\nabla$  mark on product are used for disassembly.

### 2.1 PACKING

- For WYXK, WPWXJ, RDXJ AND RLXJ types



- For WVXK type



# PD-106

## (1) PARTS LIST

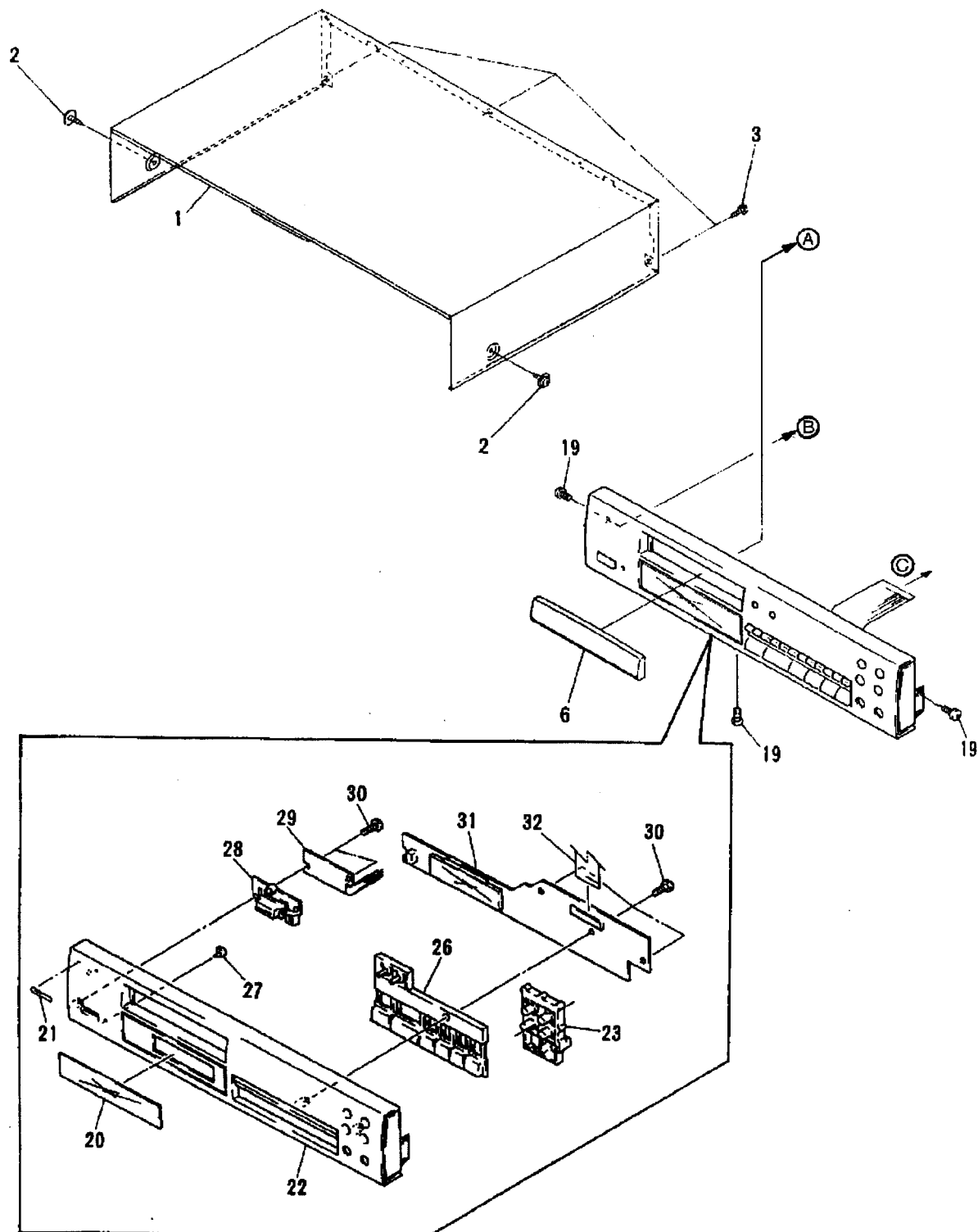
Mark	No.	Description	Parts No.
NSP	1	Control Cable (L=1m)	PDE1247
	2	Output Cable (L=1m)	PDE1248
	3	Operating Instructions	See Contrast table (2)
	4	Operating Instructions	See Contrast table (2)
	5	.....	
	6	.....	
	7	.....	
	8	Styrol Protector R	See Contrast table (2)
	9	Styrol Protector L	See Contrast table (2)
	10	Packing Case	See Contrast table (2)
NSP	11	Seat	Z23 - 007
	12	Styrol Protector F	See Contrast table (2)
	13	Styrol Protector R	See Contrast table (2)
	14	Polyethylene Bag	See Contrast table (2)
	15	Spacer	See Contrast table (2)
	16	Caution 220V Label	See Contrast table (2)

## (2) CONTRAST TABLE

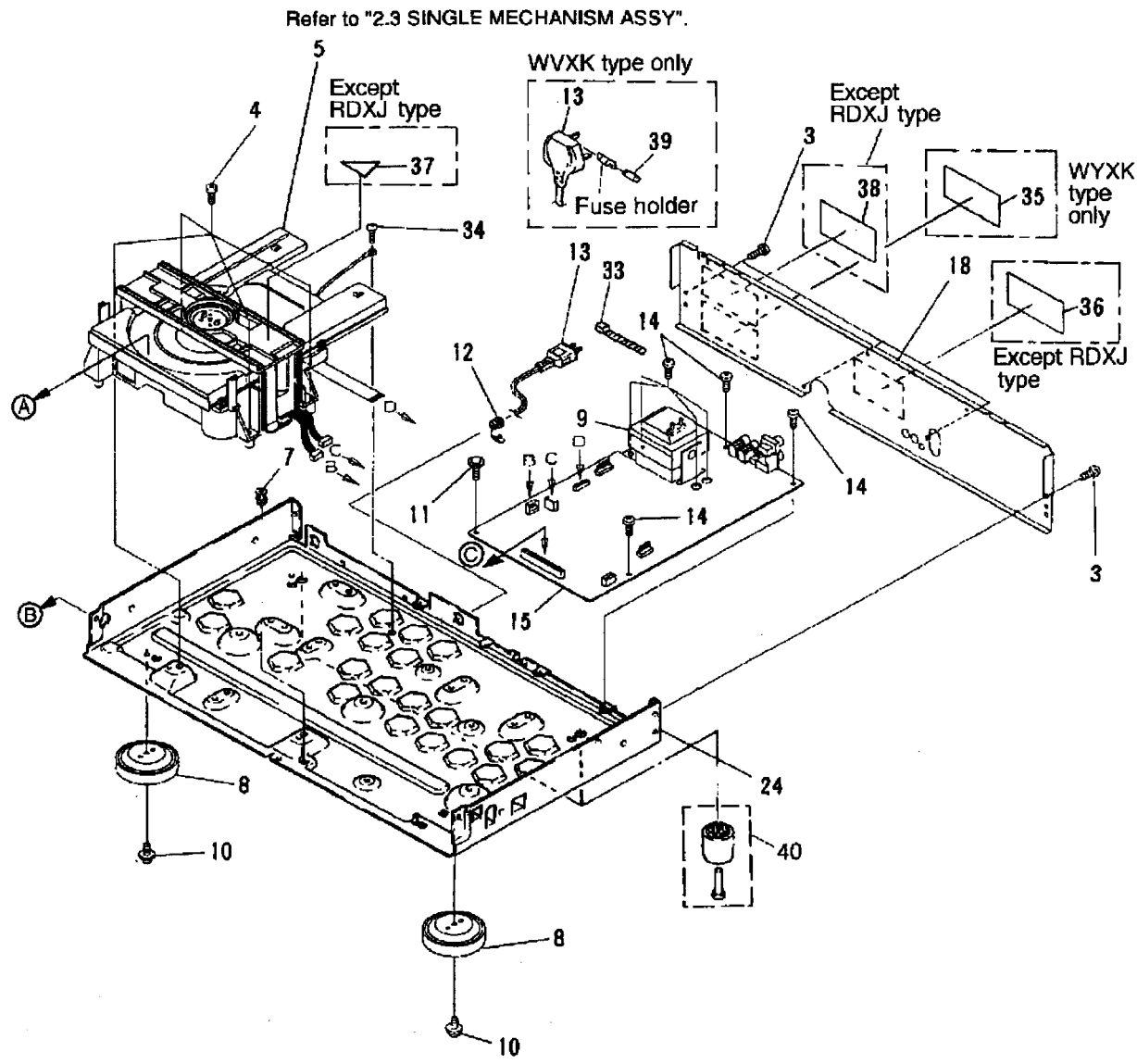
WVXK, WPWXJ, RDXJ, RLXJ and WYXK types have the same construction except for the following:

Mark	No.	Symbol and Description	Part No.					Remarks
			WYXK TYPE	WVXK TYPE	WPWXJ TYPE	RDXJ TYPE	RLXJ TYPE	
NSP	3	Operating Instructions (English)	PRB1254	PRB1254	PRB1254	Not used	Not used	
	3	Operating Instructions (English/Spanish/Chinese)	Not used	Not used	Not used	PRE1256	PRE1256	
	4	Operating Instructions (German/French/Italian/Dutch /Swedish/Spanish/Portuguese)	PRD1017	Not used	Not used	Not used	Not used	
	8	Styrol Protector R	PHA1289	Not used	PHA1289	PHA1289	PHA1289	
	9	Styrol Protector L	PHA1290	Not used	PHA1290	PHA1290	PHA1290	
	10	Packing Case	PHG2249	PHG2250	PHG2251	PHG2251	PHG2251	
	12	Styrol Protector F	Not used	PHA1239	Not used	Not used	Not used	
	13	Styrol Protector R	Not used	PHA1254	Not used	Not used	Not used	
	14	Polyethylene Bag	Not used	Z21 - 013	Not used	Not used	Not used	
	15	Spacer	Not used	PHC1075	Not used	Not used	Not used	
	16	Caution 220V Label	Not used	Not used	Not used	ARR1003	ARR1003	

## 2.2 EXTERIOR



PD-106



## (1) PARTS LIST

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
	1	Bonnet	See Contrast table (2)		26	Operate Button	PAC1798
	2	Screw	FBT40P080FZK		27	LED Lens	PNW2019
	3	Screw	BBZ30P080FZK		28	Power Button	PAC1708
	4	Screw	BBZ30P160FMC	NSP	29	SW BOARD ASSY	See Contrast table (2)
NSP	5	SINGLE MECHANISM ASSY	PXA1593		30	Screw	PPZ30P100FMC
	6	Name Plate	PNW2547	NSP	31	DISPLY BOARD ASSY	See Contrast table (2)
NSP	7	Spacer	PNY - 404		32	30P F.F.C/30V	PDD1049
	8	Insulator	PNW1912		33	Binder	ZCA - SKB90BK
△	9	Power Transformer	See Contrast table (2)		34	Screw	PDZ30P050FMC
	10	Screw	IBZ30P100FCC		35	Caution Label	See Contrast table (2)
	11	Screw	IBZ30P150FCC	NSP	36	Caution Label (F)	See Contrast table (2)
△	12	Strain Relief	CM - 22B		37	Caution Label (G)	See Contrast table (2)
△	13	AC Power Cord	See Contrast table (2)		38	Caution Label	See Contrast table (2)
	14	Screw	BBZ30P060FMC	△	39	Fuse (T5A)	See Contrast table (2)
△	15	MOTHER BOARD ASSY	See Contrast table (2)		40	Reg Assy	See Contrast table (2)
	16	.....					
	17	.....					
	18	Rear Base	See Contrast table (2)				
	19	Screw	IBZ30P080FCC				
	20	Display Window	See Contrast table (2)				
	21	Name Plate	PAM1608				
	22	Panel	PNW2733				
	23	Mode Button	PAC1796				
NSP	24	Under Base	See Contrast table (2)				
	25	.....					

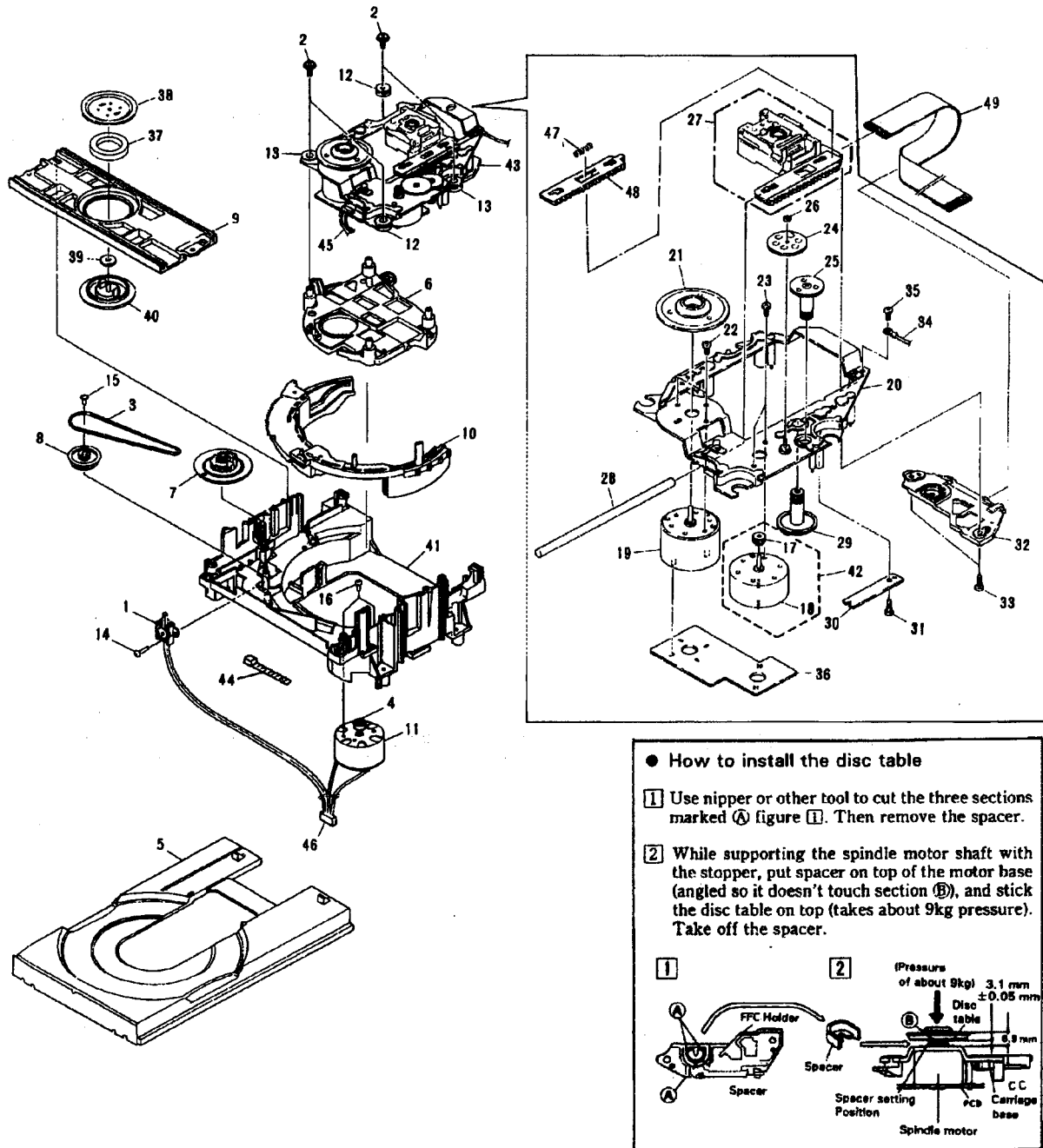
## (2) CONTRAST TABLE

WVXK, WPWXJ, RDXJ, RLXJ and WYXK types have the same construction except for the following:

Mark	No.	Symbol and Description	Part No.					Remarks
			WYXK TYPE	WVXK TYPE	WPWXJ TYPE	RDXJ TYPE	RLXJ TYPE	
△	1	Bonnet	PYY1183	PYY1183	PYY1182	PYY1182	PYY1182	
△	9	Power Transformer	PTT1236	PTT1236	PTT1236	PTT1238	PTT1238	
△	13	AC Power Cord	PDG1003	PDG1055	ADG1123	PDG1013	PDG1003	
△	15	MOTHER BOARD ASSY	PWM2135	PWM2135	PWM2137	PWM2136	PWM2136	
	18	Rear Base	PNA2345	PNA2346	PNA2349	PNA2347	PNA2348	
	20	Display Window	PAM1664	PAM1664	PAM1667	PAM1667	PAM1667	
NSP	24	Under Base	PNA2219	PNA2219	PNA2177	PNA2177	PNA2177	
NSP	29	SW BOARD ASSY	PWZ2941	PWZ2941	PWZ2942	PWZ2942	PWZ2942	
NSP	31	DISPLAY BOARD ASSY	PWZ2934	PWZ2934	PWZ2935	PWZ2935	PWZ2935	
	35	Caution Label	PRW1233	Not used	Not used	Not used	Not used	
NSP	36	Caution Label (F)	VRW - 328	VRW - 328	VRW - 328	Not used	VRW - 328	
	37	Caution Label (G)	VRW - 329	VRW - 329	VRW - 329	Not used	VRW - 329	
	38	Caution Label	VRW1094	PRW1018	PRW1018	Not used	PRW1018	
△	39	Fuse (T5A)	Not used	PEK1003	Not used	Not used	Not used	
	40	Reg Assy	AEC1222	AEC1222	AEC1531	AEC1531	AEC1531	

# PD-106

## 2.3 SINGLE MECHANISM ASSY



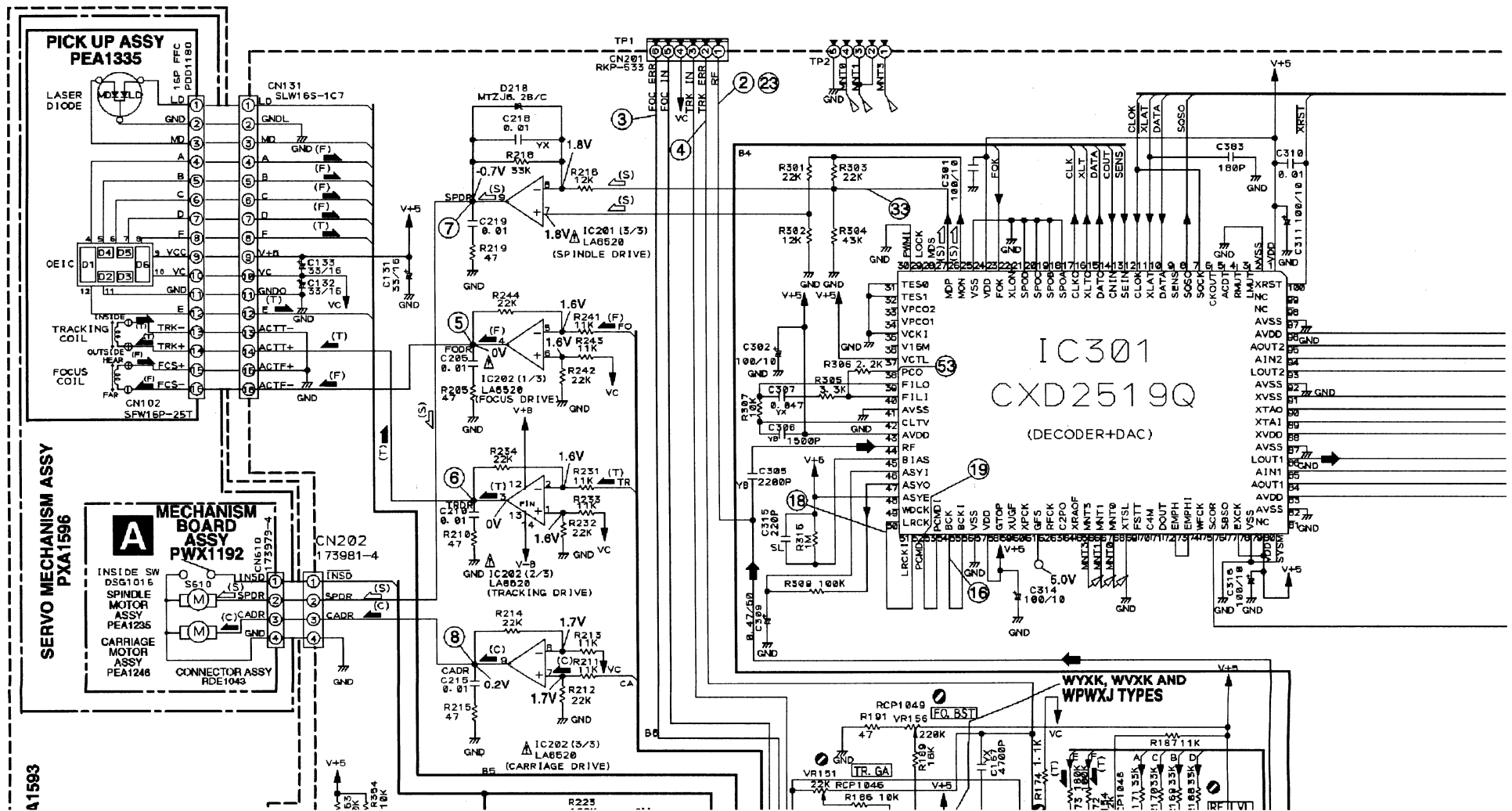


## PARTS LIST

Mark	No.	Description	Parts No.
	1	Lever Switch	DSK1003
	2	Screw	PHA1048
	3	Rubber Belt	PEB1193
	4	Motor Pulley	PNW1634
	5	Tray Black V	PNW2455
	6	Float Base	PNW2032
	7	Drive Gear 2	PNW2369
	8	Gear Pulley	PNW2034
	9	Clamper Base	PNW2375
	10	Clamp Cam	PNW2364
	11	DC Motor/0.75W	PXM1010
	12	Float Rubber B	REB1287
	13	Float Rubber G	REB1288
	14	Screw	BPZ26P080FMC
	15	Screw	Z39 - 019
	16	Screw	PMZ26P040FMC
	17	Pinion Gear	PNW2055
NSP	18	DC Motor (CARRIAGE)	PXM1027
	19	D.C. Motor Assy (SPINDLE)	PEA1235
	20	Carriage Base	PNW2699
	21	Disc Holder	PNW1608
	22	Screw	JFZ20P030FNI
	23	Screw	JFZ17P025FZK
	24	Gear 3	PNW2054
	25	Gear 2	PNW2053
	26	Washer	WT12D032D025
	27	Pick Up Assy-S	PEA1335
	28	Guide Bar	PLA1094
	29	Gear 1	PNW2052
	30	Gear Stopper	PNB1303
	31	Screw	BPZ20P060FMC
	32	FFC Holder	PNW2734
	33	Screw	BPZ26P100FMC
	34	Earth Lead Unit	PDF1104
	35	Screw	BBZ26P060FMC
NSP	36	MECHANISM BOARD ASSY	PWX1192
	37	Clamp Magnet	PMF1014
	38	Yoke	PNB1216
NSP	39	H Rubber	PEB1249
	40	Clamper S	PNW1609
	41	Loading Base	PNW2376
	42	D.C. Motor Assy (CARRIAGE)	PEA1246
NSP	43	SERVO MECHANISM ASSY	PXA1596
	44	Binder	Z09 - 056
	45	Connector Assy (4P)	RDR1043
	46	Connector Assy (5P)	PDE1239
	47	PU Rack Spring	ABH7077
	48	Rack Holder	PNW2056
	49	16P FFC/30V	PDD1183

PD-106

### 3. SCHEMATIC DIAGRAM



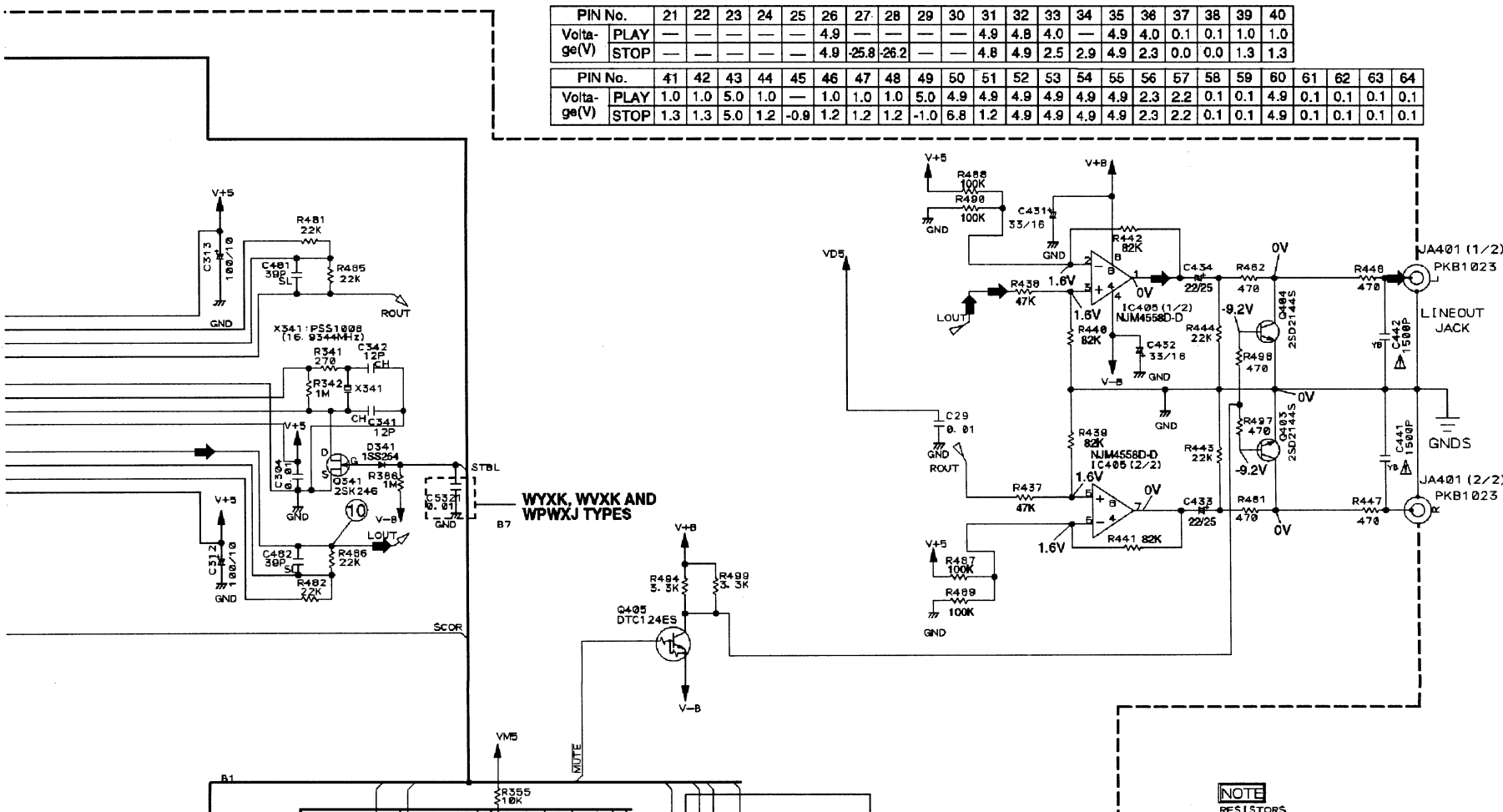
Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST"

IC351 (PD4835A)

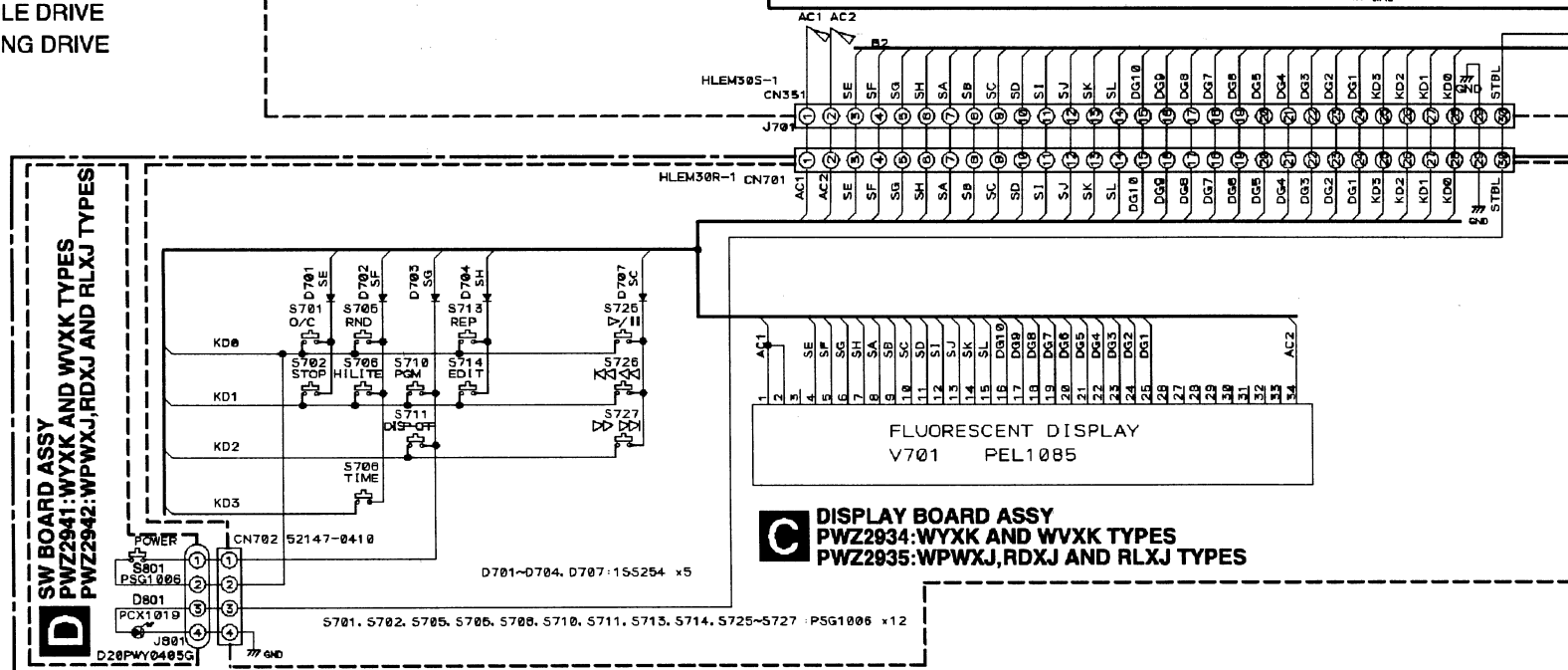
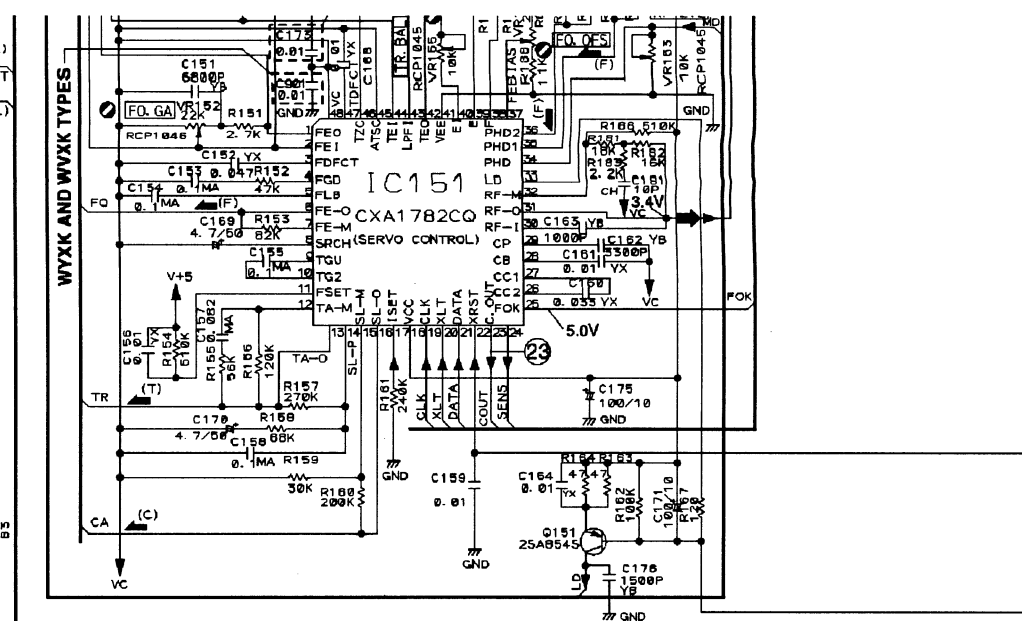
PIN No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Volta-ge(V)	PLAY	5.0	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2
Volta-ge(V)	STOP	5.0	-23.8	-23.7	-23.7	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8

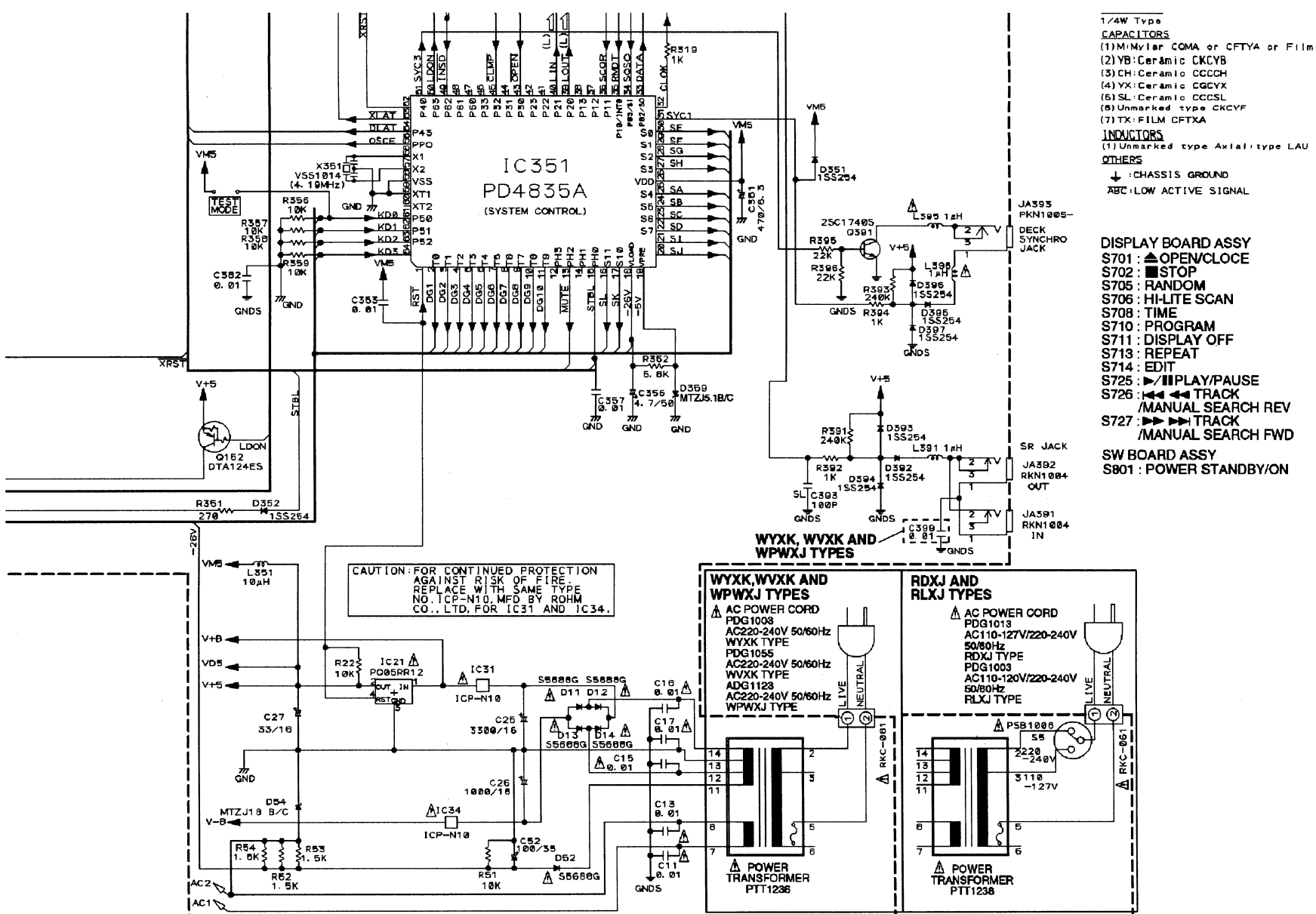
PIN No.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Volta-ge(V)	PLAY	—	—	—	—	4.9	—	—	—	—	4.9	4.8	4.0	—	4.9	4.0	0.1	0.1	1.0	1.0
Volta-ge(V)	STOP	—	—	—	—	4.9	-25.8	-26.2	—	—	4.8	4.9	2.5	2.9	4.9	2.3	0.0	0.0	1.3	1.3

PIN No.	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Volta-ge(V)	PLAY	1.0	1.0	5.0	1.0	—	1.0	1.0	5.0	4.9	4.9	4.9	4.9	4.9	4.9	2.3	2.2	0.1	0.1	4.9	0.1	0.1	0.1	0.1
Volta-ge(V)	STOP	1.3	1.3	5.0	1.2	-0.9	1.2	1.2	-1.0	6.8	1.2	4.9	4.9	4.9	4.9	2.3	2.2	0.1	0.1	4.9	0.1	0.1	0.1	0.1



NOTE  
RESISTORS





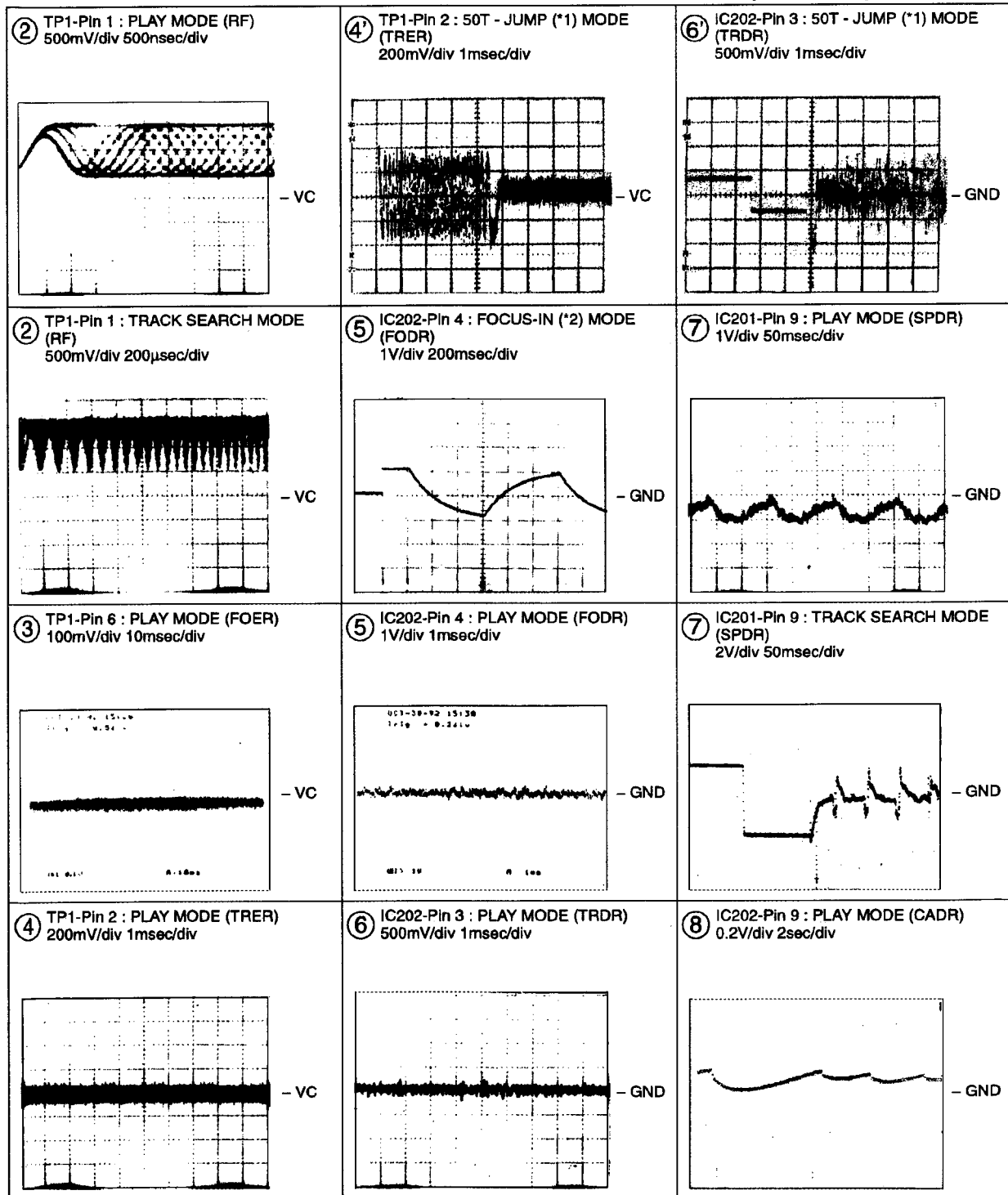
# PD-106

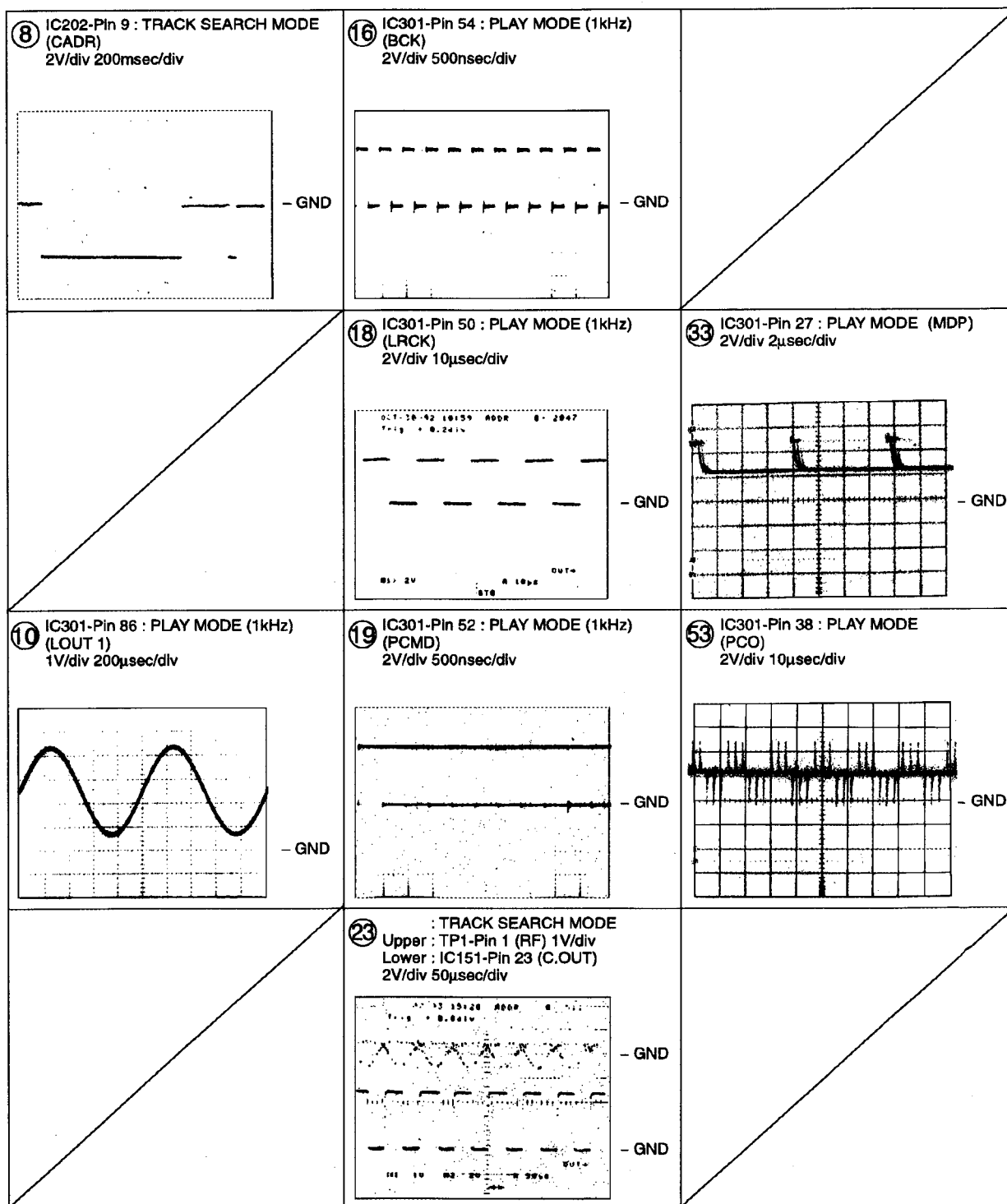
## Waveforms

Note : The encircled numbers denote measuring points in the schematic diagram.

\*1 50T-JUMP : After switching to the pause mode, Press the manual search key.

\*2 FOCUS-IN : Press the key without loading a disc.





4. PCB CONNECTION DIAGRAM

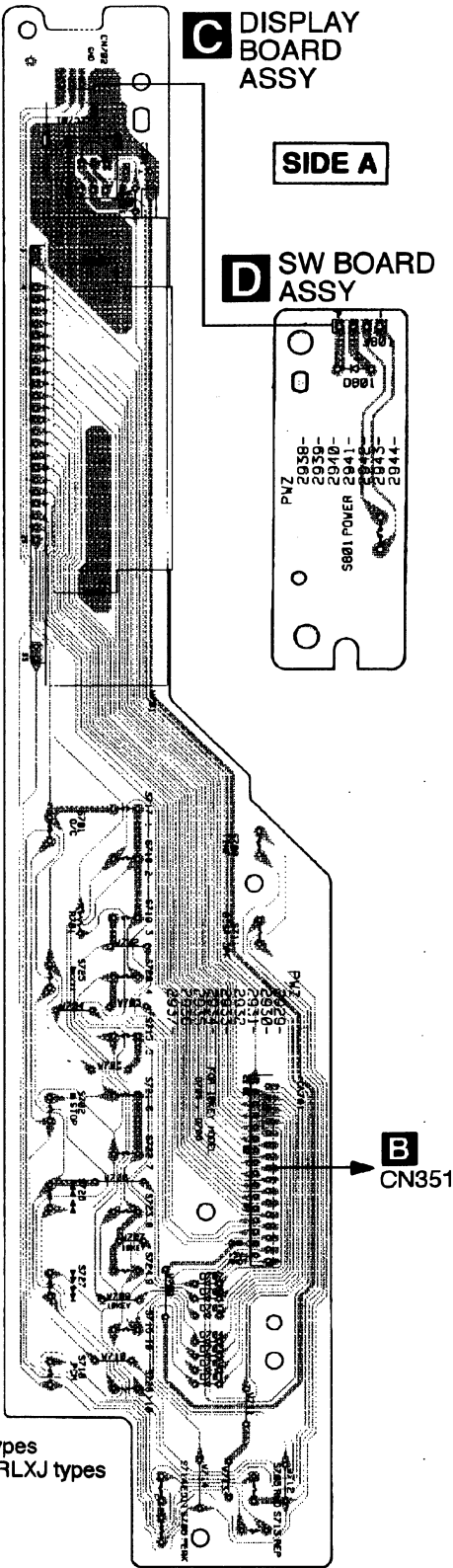
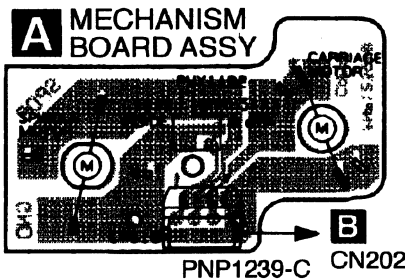
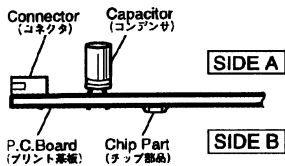
NOTE FOR PCB DIAGRAMS

- 1. Part numbers in PCB diagrams match those in the schematic diagrams.
- 2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

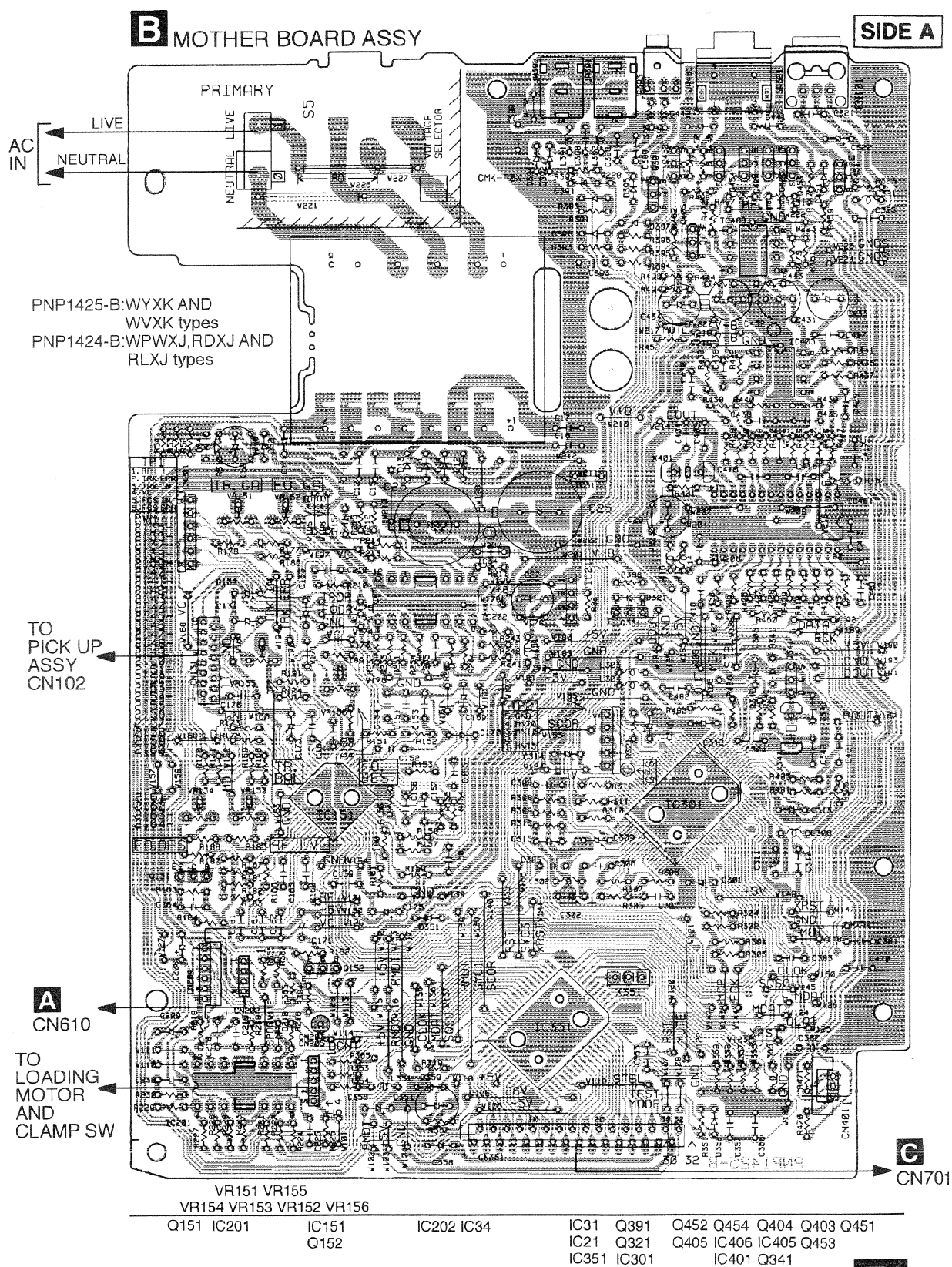
- 3. The parts mounted on this PCB include all necessary parts for several destination.
- For further information for respective destinations, be sure to check with the schematic diagram.

4. Viewpoint of PCB diagrams



PNP1387-A:WYXK AND WVXK types  
PNP1386-A:WPWXJ,RDXJ AND RLXJ types





## 5. PCB PARTS LIST

- NOTES:**
- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
  - The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
  - When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560 $\Omega$   $\rightarrow$  56  $\times 10^1$   $\rightarrow$  561 ..... RD1/4PU561J  
 47k $\Omega$   $\rightarrow$  47  $\times 10^3$   $\rightarrow$  473 ..... RD1/4PU473J  
 0.5 $\Omega$   $\rightarrow$  R50 ..... RN2H050K  
 1 $\Omega$   $\rightarrow$  1R0 ..... RS1P1R0K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k $\Omega$   $\rightarrow$  562  $\times 10^1$   $\rightarrow$  5621 ..... RN1/4PC5621F

### ■ LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	Part No.					Remarks
		WYXK TYPE	WVXK TYPE	WPWXJ TYPE	RDXJ TYPE	RLXJ TYPE	
$\Delta$	MOTHER BOARD ASSY	PWM2135	PWM2135	PWM2137	PWM2136	PWM2136	
$\Delta$ NSP	SUB BOARD ASSY	PWX1397	PWX1397	PWX1398	PWX1398	PWX1398	
NSP	└ DISPLAY BOARD ASSY	PWZ2934	PWZ2934	PWZ2935	PWZ2935	PWZ2935	*1
NSP	└ SW BOARD ASSY	PWZ2941	PWZ2941	PWZ2942	PWZ2942	PWZ2942	*2
NSP	SINGLE MECHANISM ASSY	PXA1593	PXA1593	PXA1593	PXA1593	PXA1593	
NSP	└ SERVO MECHANISM ASSY	PXA1596	PXA1596	PXA1596	PXA1596	PXA1596	
NSP	└ MECHANISM BOARD ASSY	PWX1192	PWX1192	PWX1192	PWX1192	PWX1192	

Note \*1 : Although PWZ2934 and PWZ2935 are different in part number, they consist of the same components.

\*2 : Although PWZ2941 and PWZ2942 are different in part number, they consist of the same components.

### ■ CONTRAST OF PCB ASSEMBLIES

#### MOTHER BOARD ASSY

PWM2137, PWM2136 and PWM2135 have the same construction except for the following:

Mark	Symbol and Description	Part No.			Remarks
		PWM2135	PWM2137	PWM2136	
$\Delta$	C901 C173, C399, C5321 S5 Voltage Selector	CKCYF103Z50 CKCYF103Z50 Not used	Not used CKCYF103Z50 Not used	Not used Not used PSB1006	

## ■ PCB PARTS LIST FOR WYXK TYPE

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
<b>B MOTHER BOARD ASSY</b>							
<b>SEMICONDUCTORS</b>							
	IC151		CXA1782CQ		C157		CGCYX823K25
	IC301		CXD2519Q		C163		CKCYB102K50
△	IC31, IC34		ICP - N10		C176, C306, C441, C442		CKCYB152K50
△	IC201, IC202		LA6520		C305		CKCYB222K50
	IC405		NJM4558D - D		C162		CKCYB332K50
	IC351		PD4835A		C151		CKCYB682K50
△	IC21		PQ05RR12	△	C11, C13, C15		CKCYF103Z50
	Q151		2SA854S		C159		CKCYF103Z50
	Q391		2SC1740S	△	C16, C17		CKCYF103Z50
	Q403, Q404		2SD2144S		C173, C205, C210, C215, C219		CKCYF103Z50
	Q341		2SK246		C29, C304, C310, C353, C357		CKCYF103Z50
	Q152		DTA124ES		C382, C399, C5321, C901		CKCYF103Z50
	Q405		DTC124ES		C153 - C155, C158		CQMA104J50
	D341, D351, D352, D392 - D397		1SS254	<b>RESISTORS</b>			
	D54		MTZJ18B/C		VR153, VR155 (10kΩ/0.1W)		RCP1045
	D359		MTZJ5.1B/C		VR151, VR152, VR154 (22kΩ/0.1W)		RCP1046
	D218		MTZJ6.2B/C		VR156 (220kΩ/0.1W)		RCP1049
△	D11 - D14, D52		S5688G		Other Resistors		RD1/4PU□□□
<b>COILS AND FILTERS</b>							
	L351		LAU100J	<b>OTHERS</b>			
	L391		LAU1R0J		CN202	MT 4P CONNECTOR	173981 - 4
△	L395, L396		LAU1R0J		CN205	MT 5P CONNECTOR	173981 - 5
<b>CAPACITORS</b>					CN351	CONNECTOR	HLEM30S - 1
	C181		CCCCH100D50		JA401	JACK	PKB1023
	C341, C342		CCCCH120J50		JA393	JACK	PKN1005
	C393		CCCSL101J50		X341	XTAL RES (OSC) (16.9344MHz)	PSS1008
	C383		CCCSL181J50	△	JA391, JA392	JACK	RKC - 061
	C315		CCCSL221J50		CN201	CONNECTOR 6P	RKN1004
	C481, C482		CCCSL390J50		CN131	CONNECTOR	RKP - 533
	C171, C175, C301, C302		CEAS101M10		X351	CERAMIC RESONATOR (4.19MHz)	SLW16S - 1 C7
	C311 - C314, C316		CEAS101M10	<b>C DISPLAY BOARD ASSY</b>			
	C52		CEAS101M35	<b>SEMICONDUCTORS</b>			
	C26		CEAS102M16		D701 - D704, D707		1SS254
	C433, C434		CEAS220M25	<b>SWITCHES AND RELAYS</b>			
	C131 - C133, C27, C431, C432		CEAS330M16		S701, S702, S705, S706, S708		PSG1006
	C25		CEAS332M16		S710, S711, S713, S714		PSG1006
	C351		CEAS471M6R3		S725 - S727		PSG1006
	C169, C170, C356		CEAS4R7M50	<b>OTHERS</b>			
	C309		CEASR47M50		CN702	4P JUMPER CONNECTOR	52147 - 04/0
	C156, C161, C164, C168, C218		CGCYX103K25		CN701	CONNECTOR	HLEM30R - 1
	C160		CGCYX333K25		V701	FL INDICATOR TUBE	PEL1085
	C167		CGCYX472K25				
	C152, C307		CGCYX473K25				

**PD-106**








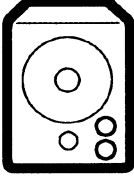
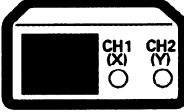
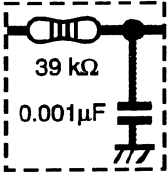
Mark	No.	Description	Parts No.
<b>D SW BOARD ASSY</b>			
<b>SEMICONDUCTORS</b>			
	D801		PCX1019
<b>SWITCHES AND RELAYS</b>			
	S801		PSG1006
<b>A MECHANISM BOARD ASSY</b>			
<b>SWITCHES AND RELAYS</b>			
	S610		DSG1016
<b>OTHERS</b>			
	CN610	MT 4P CONNECTOR	I73979 - 4

6. ADJUSTMENT


6.1 ELECTRIC ADJUSTMENTS (電気系調整)

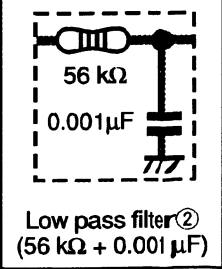
6.1.1 PREPARATIONS (準備)

1.1 Jigs and Measuring Instruments (使用測定器/治工具類)

 8-cm DISC (With at least about 20 minutes recording) (20分程度信号の 入ったディスク)	 CD TEST DISC (YEDS-7)	 ⊖ Precise screwdriver	 ⊖ screwdriver (small)	 ⊕ screwdriver (medium)
 Ball point hexagon wrench (size: 1.5mm) GGK1002 ボールポイント付 六角 ドライバー(対辺 1.5mm)	 ⊕ screwdriver (large)	 Low-frequency oscillator	 Dual-trace oscilloscope (10 : 1 probe)	 Low pass filter① (39 kΩ + 0.001 μF)

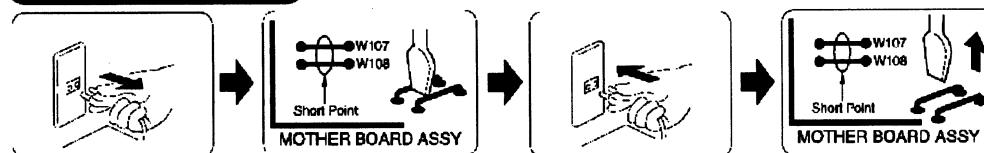
1.2 Necessary Adjustment Points (調整に必要な項目)

When (このような時)	Adjustment points
Exchange PICKUP (ピックアップを交換した時)	1.2.3.4.5.6.7. 8.9.10.11.12. → Page 21~26
Exchange MOTHER BOARD ASSY (MOTHER BOARD ASSYを交換した時)	1.3.5.6.7.8. 9.10.11.12. → Page 21~26
Exchange SERVO MECH ASSY (サーボメカ ASSYを交換した時)	1.2.3.4.5.6.7. 8.9.10.11.12. → Page 21~26
Exchange SPINDLE MOTOR (スピンドルモーターを交換した時)	 ADJ → Page 8



## 1 How to Start/Cancel Test Mode (テストモードの設定/解除)

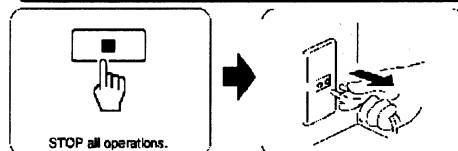
## TEST MODE: ON



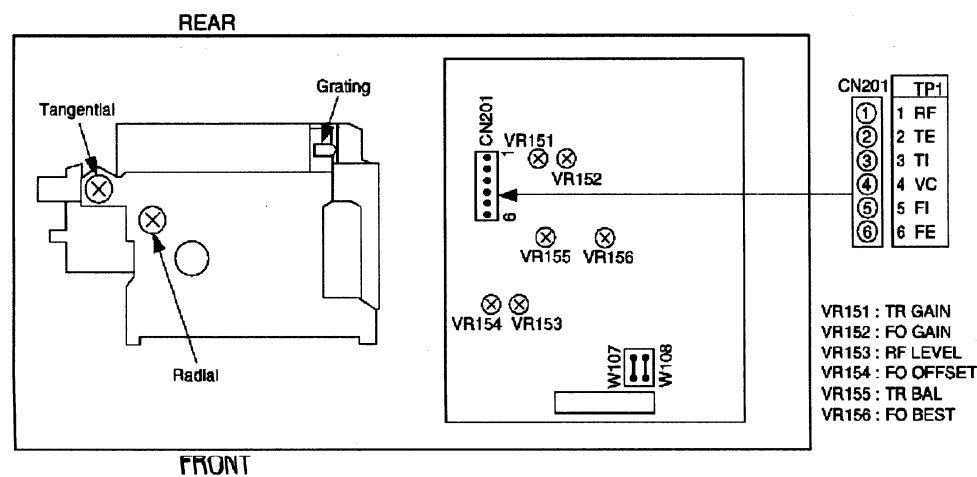
## TEST MODE: PLAY



## TEST MODE: STOP → CANCEL



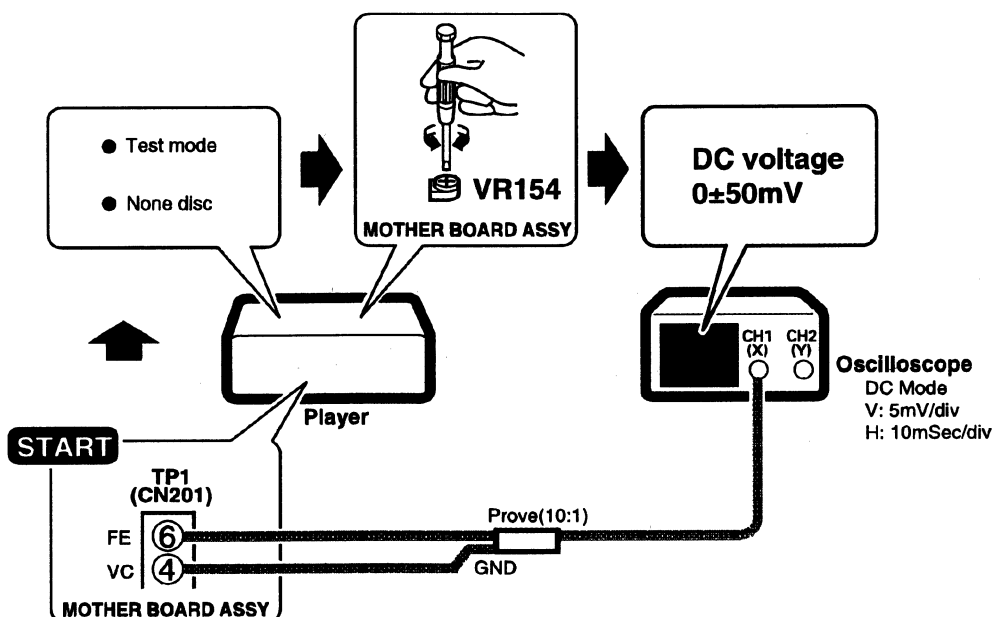
## 2 Adjustment Locations (テストポイントと調整用VRの位置)



## 6.2 Check and Adjustment (確認、調整)

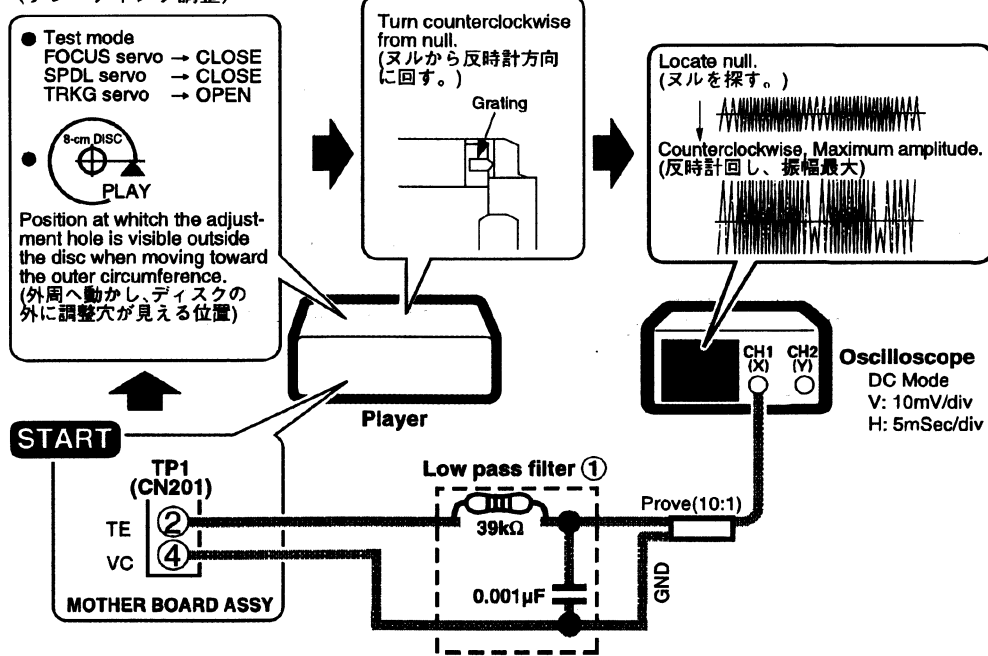
### 1. Focus Offset Adjustment

(フォーカスオフセット調整)



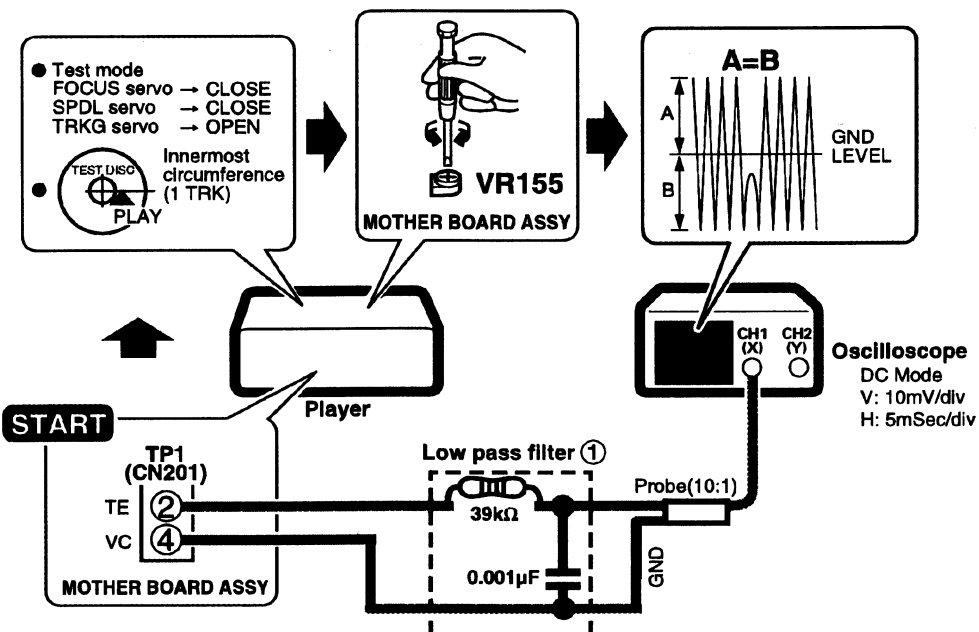
### 2. Grating Adjustment

(グレーティング調整)



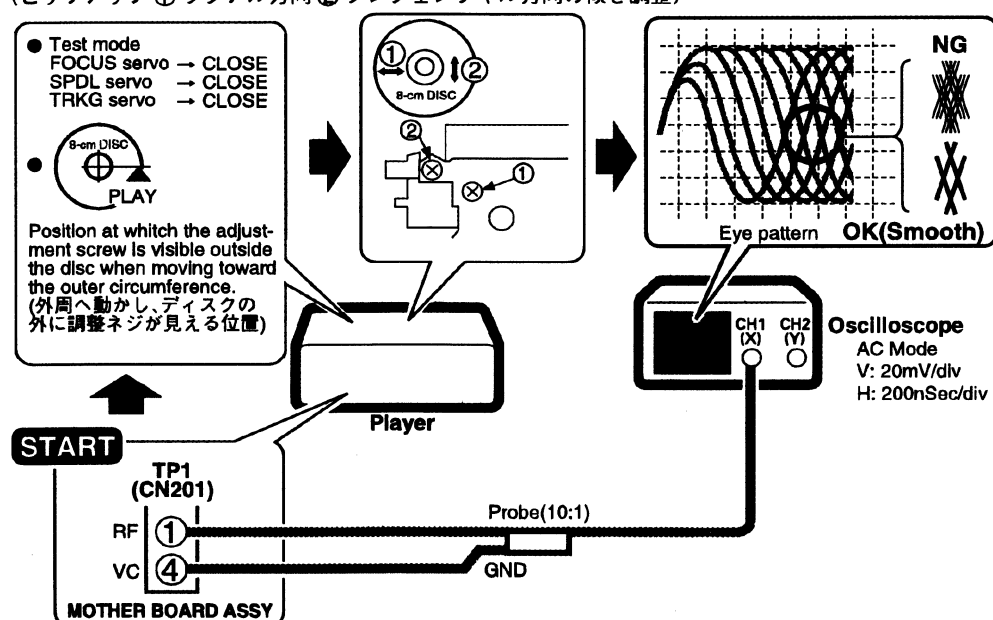
### 3. Tracking Error Barance Adjustment

(トラッキングエラーバランス調整)



### 4. PICKUP ①RADIAL / ②TANGENTIAL DIRECTION TILT ADJUSTMENT

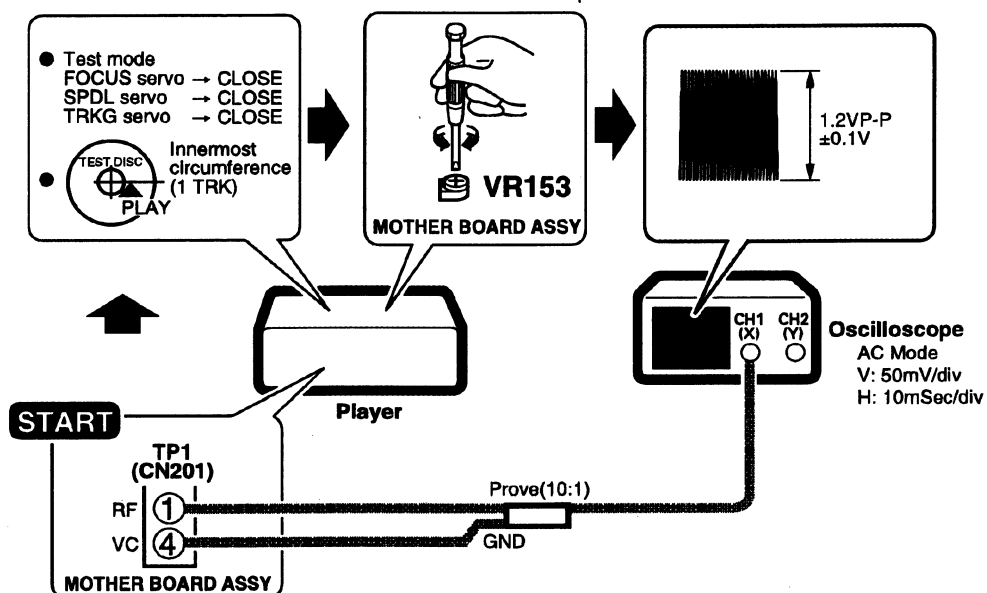
(ピックアップ①ラジアル方向②タンジェンシャル方向の傾き調整)





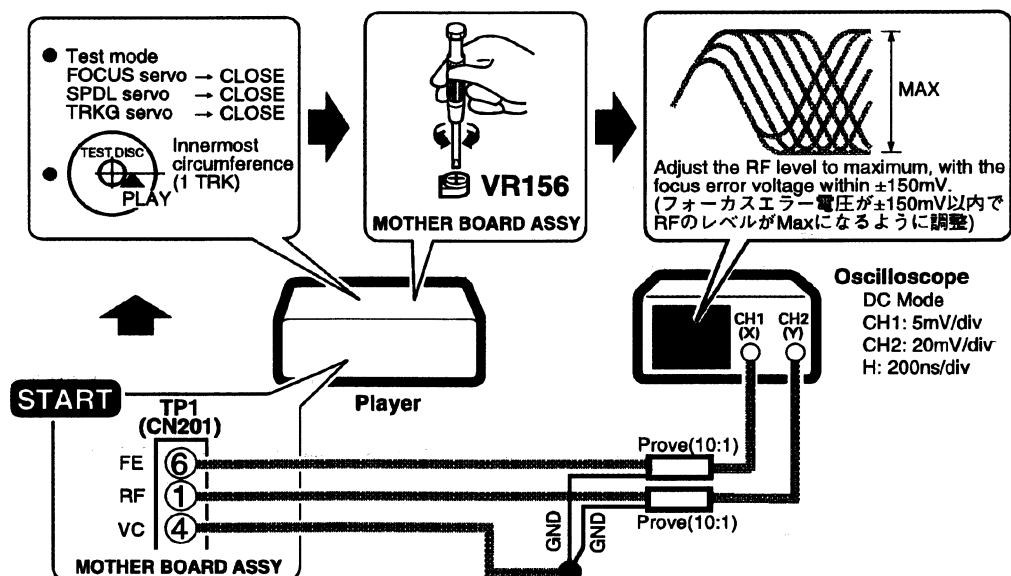
## 5. RF LEVEL ADJUSTMENT I

(RFレベル調整 1)



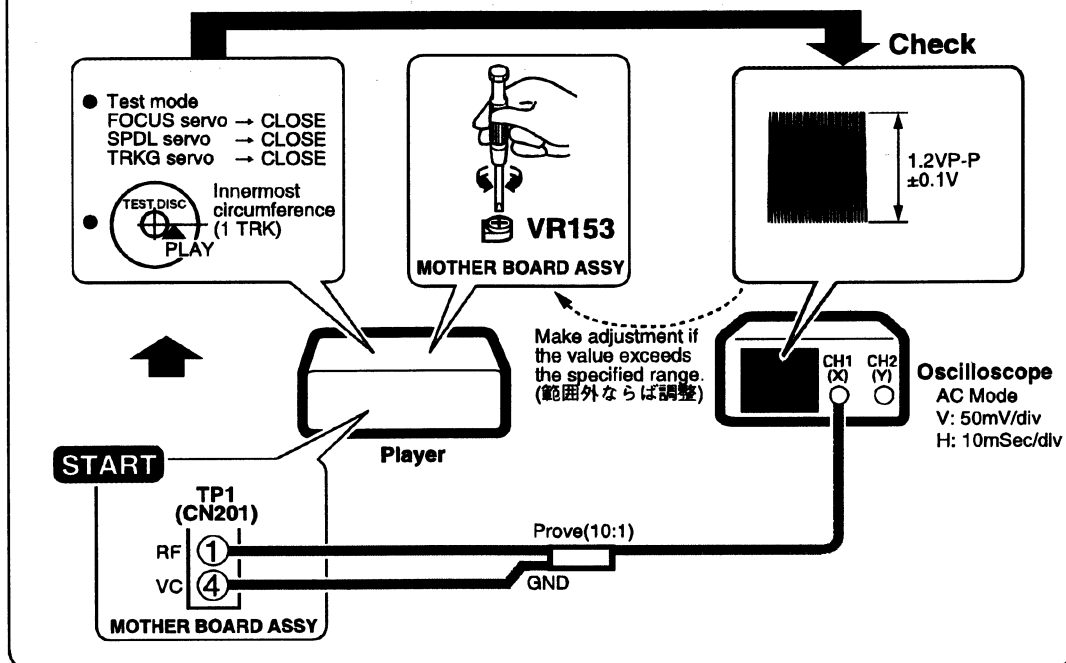
## 6. Focus Best Adjustment I

(フォーカスベスト調整 1)



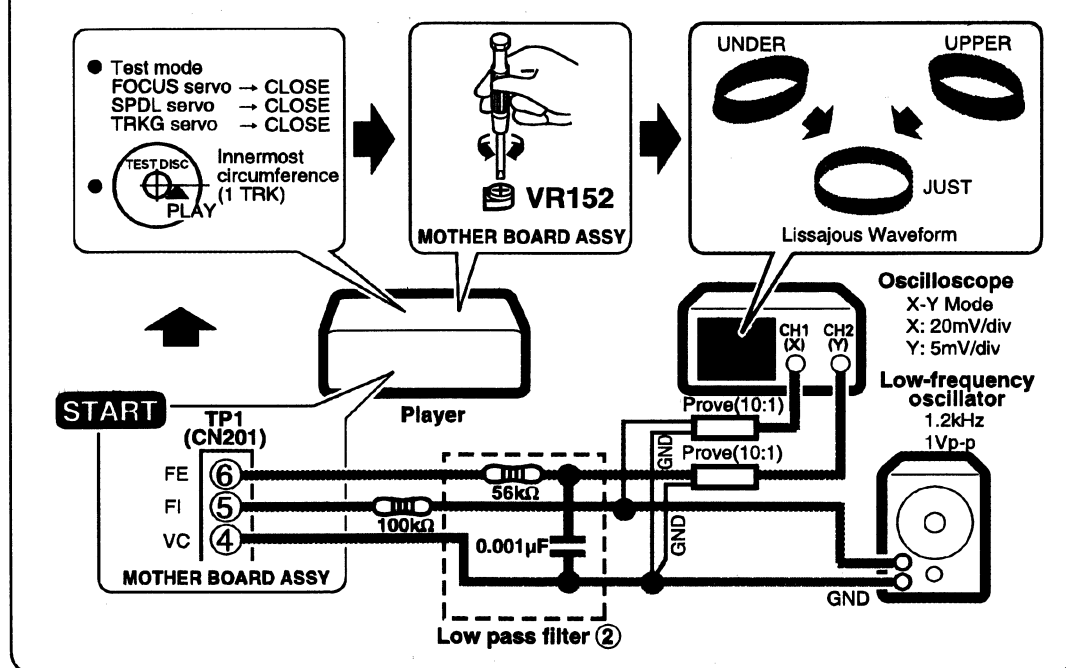
## 7. RF LEVEL ADJUSTMENT II

(RFレベル調整 2)



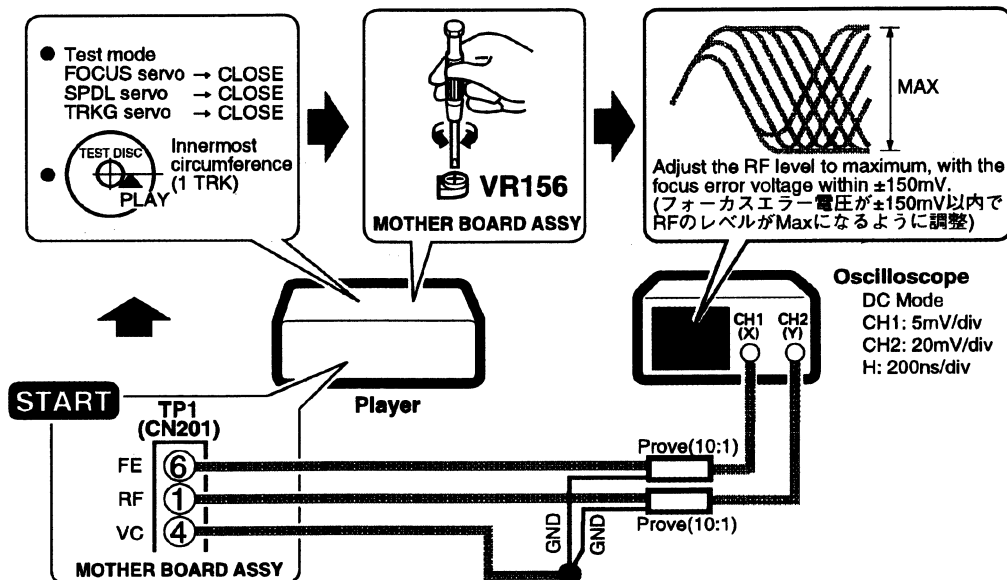
## 8. Focus Servo Loop Gain Adjustment I

(フォーカスサーボループゲイン調整 1)



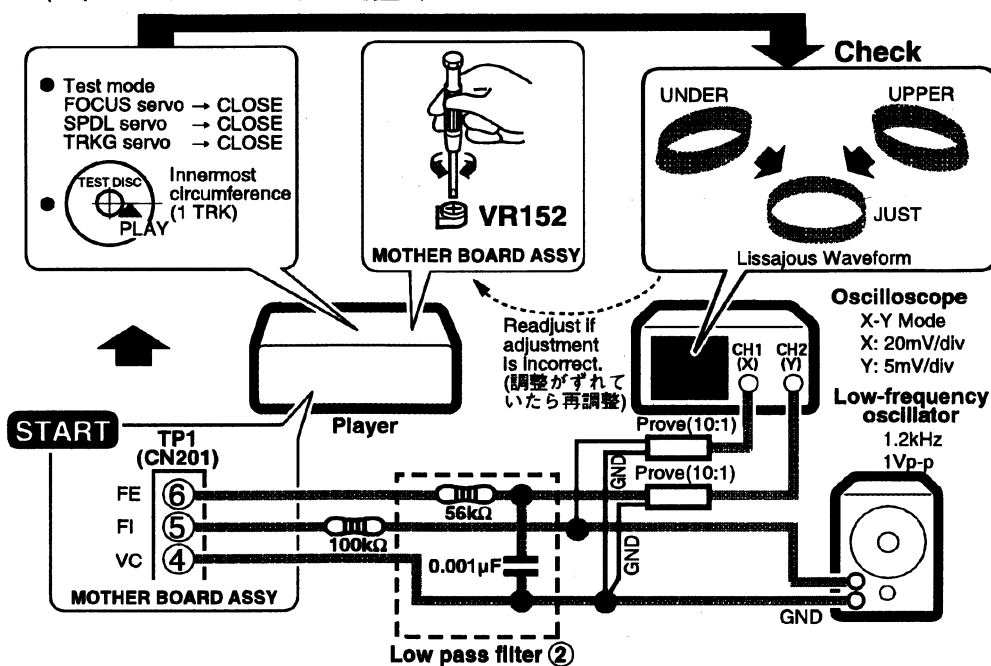
## 9. Focus Best Adjustment II

(フォーカスベスト調整 2)



## 10. Focus Servo Loop Gain Adjustment II

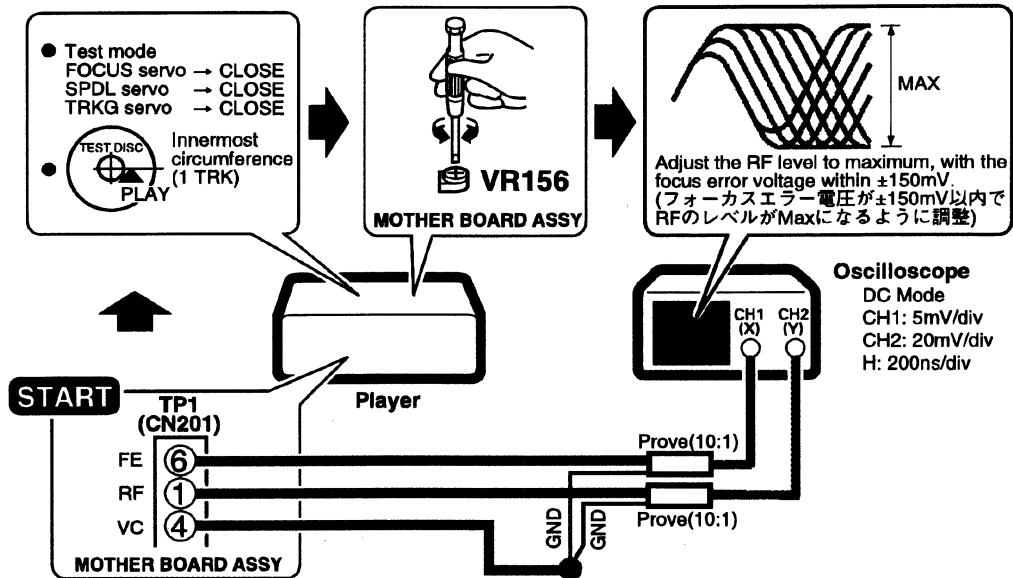
(フォーカスサーボループゲイン調整 2)



## 11. Focus Best Adjustment III

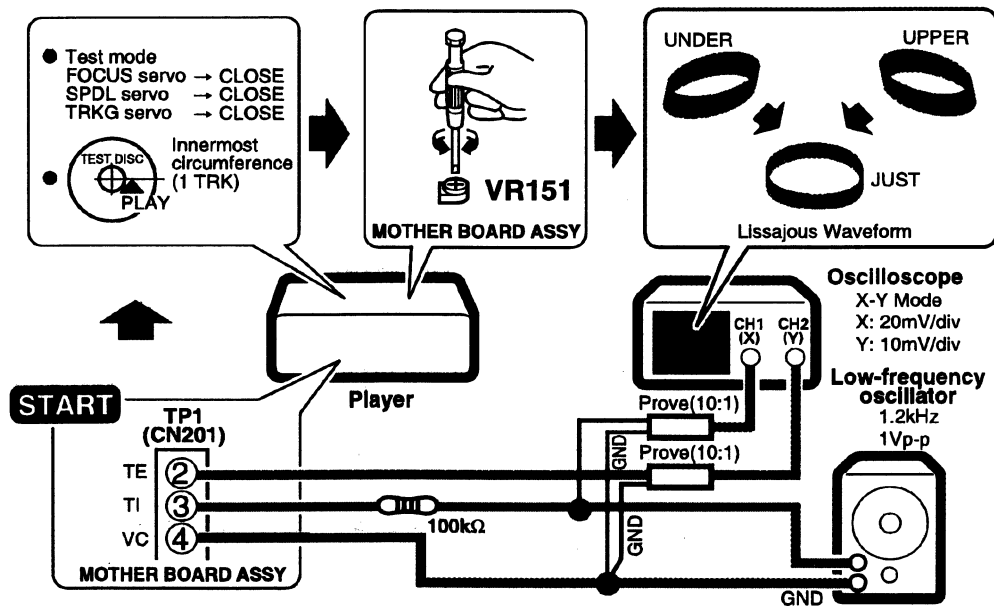
(フォーカスベスト調整 3)

Adjust this point only if adjustment was made in item 10.  
(10の調整をおこなった時のみ調整を行なう)



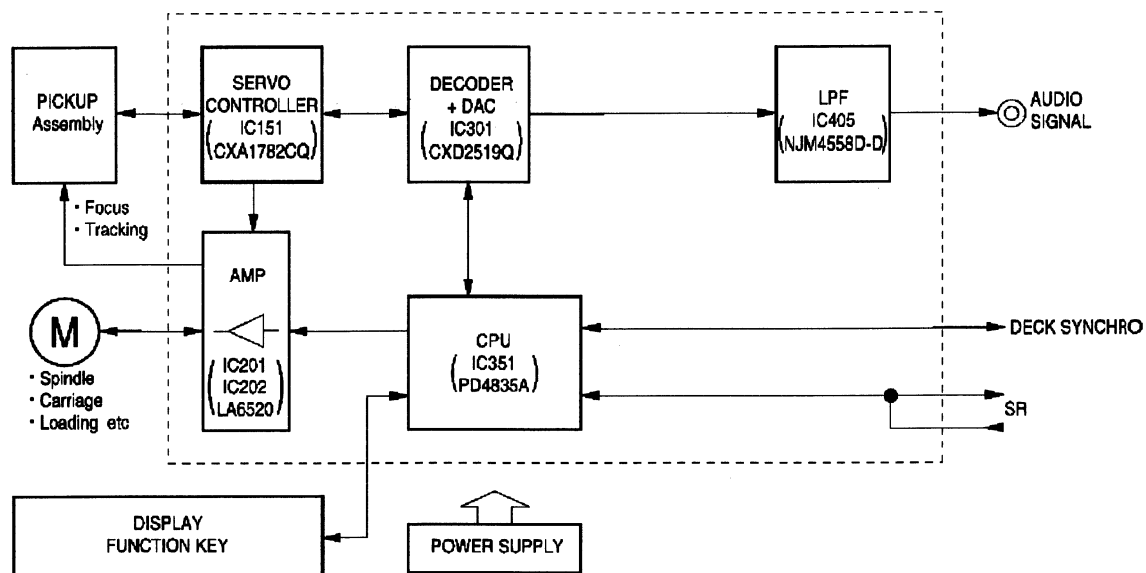
## 12. Tracking Servo Loop Gain Adjustment

(トラッキングサーボループゲイン調整)

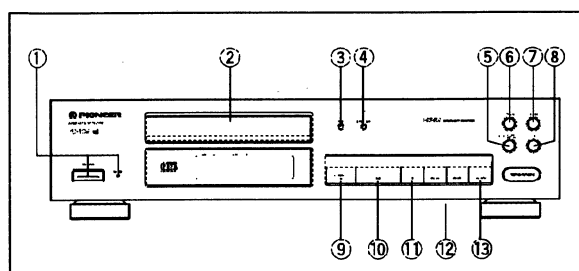


## 7. GENERAL INFORMATION

### 7.1 BLOCK DIAGRAM



## 8. PANEL FACILITIES AND SPECIFICATIONS



### FRONT PANEL

- ① **STANDBY/ON switch and STANDBY indicator**
- ② **Disc tray**
- ③ **TIME button**
- ④ **DISPLAY OFF button**
- ⑤ **COMPU/AUTO EDIT button**
- ⑥ **RANDOM button**
- ⑦ **REPEAT button**
- ⑧ **HI-LITE scan button**
- ⑨ **OPEN/CLOSE button (▲)**
- ⑩ **Play/Pause button (▶/⏸)**
- ⑪ **Stop button (■)**
- ⑫ **Track/Manual search buttons**  
(◀◀ ◀▶ ▶▶ ▶▶)
- ⑬ **PROGRAM button**

### 1. General

Type ..... Compact disc digital audio system  
 Power requirements ..... AC 220 - 240 V, 50/60 Hz  
 Power consumption ..... 12 W  
 Operating temperature ..... +5°C - +35°C  
 Weight ..... 3.1 kg  
 External dimensions ..... 420(W) X 101(H) X 263(D) mm

### 2. Audio section

Frequency response ..... 2 Hz - 20 kHz  
 S/N ratio ..... 98 dB (EIAJ)  
 Dynamic range ..... 96 dB or more (EIAJ)  
 Harmonic distortion ..... 0.003% or less (EIAJ)  
 Output voltage ..... 2.0 V (EIAJ)  
 Wow and flutter ..... Limit of measurement  
 (±0.001% W.PEAK) or less (EIAJ)  
 Channels ..... 2-channel (stereo)

### 3. Output terminal

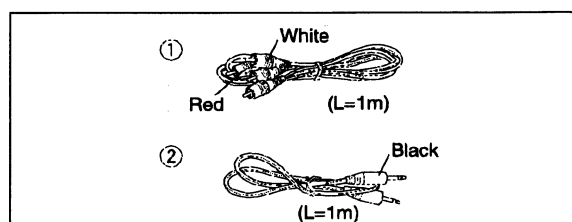
Audio line output jacks  
 Control input/output jacks  
 CD-DECK SYNCHRO jack

### 4. Accessories

- Control cable ..... 1
- Output cable ..... 1
- Operating instructions ..... 1
- Warranty Card ..... 1

### NOTE:

Specifications and design subject to possible modification without notice, due to improvements.



- ① Output cable x 1
- ② Control cable x 1